Independent Study CSC 699 Fall 2016

Application: SFSU Tutors

Milestone 2

December 20th, 2016

Rev 2.0

Team

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1. Executive Summary

SFSU Tutors is a tool to help students of SFSU to get ahead in their classes by allowing easy access to tutors,. By letting exceptional students of SFSU to offer their tutoring services directly to other students of SFSU, (a registered SFSU student) can get a better return.

Additionally, Students of SFSU interested in finding a tutor or advertising their tutoring service will no longer need to rely on a corkboard flier somewhere on campus. SFSU Tutors can be used as a central place to easily search through and find the exact tutor they need, or a place to offer tutoring service themselves.

Our website will initially cater to San Francisco State University students, but as the service grows, we could expand to other schools and offer UCSF Tutors, UC Berkeley Tutors, and so on.

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2. Use Cases

Simple and User-Friendly Home Page

John is an SFSU student currently in his sophomore year. John has been having problems with his Calculus 1 class and is looking for help with this upcoming midterm. He hears of SFSU Tutors and goes to the website. On SFSU Tutors he is presented with a very simply layout, where it shows how to use the website in very simple steps, from signing up to browsing for tutors.

Search (Registered and Unregistered Users)

Consuela has been looking for tutors for her computer science classes, but haven't had any luck. She is referred to SFSU Tutors after asking around on campus, and goes there to browse for tutors. The search page is presented with a search function where she can specify by major, class name, and date. As well as sorting function with both sorting by rating and by price. After choosing her search criteria she is presented with a list of tutors. Each tutor listing includes their name, major, classes offered, rating and price per hour. Consuela can then choose the tutor she sees fit for her.

Register and Book Tutors

After Consuela had found the tutor she sees fit, she views the tutor's page and decides to book the tutor. She is then notified that she must sign in or register first before going any further. So she goes on to register using her SFSU email, along with basic personal information, and submits her registration. After she signs in she is redirected to the booking page, where she chooses the available time that best fits here and for how long, and navigates to the next page where she chooses the class she wants help in, and finalize the booking using paypal as a secure payment method.

Register as Tutor and List Tutoring Services

Krishnan has been trying to apply as a tutor for the LAC tutoring services at SFSU, but hasn't had any luck as they don't offer computer science tutoring. He goes to SFSU Tutors and learns that he can easily offer his services by simply registering as a tutor on the website. So he goes to register and is then prompted by online form to fill. First is his personal information, along with a photo of himself. Then comes the academic information, where he provides his major, GPA, and uploads his SFSU transcript. He then chooses the classes he would like to offer along with his availability and proposed hourly rate. He submits his form and waits for approval by a website admin. After he is approved, his tutoring services are automatically listed, and students can find him while searching for tutors.

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Administrator

Max is a retired software developer from Silicon Valley. He has often found himself bored with retirement and so he has found a new job working for a tutoring startup website called SFSU Tutors as an administrator. It isn't the most demanding work for Max but it keeps him occupied and using the tools provided to him, he is easily able to keep SFSU Tutors safe from any malicious or unapproved content by managing content and listings uploaded by tutors. Aside from approving tutors transcripts and registered users, he can edit and delete both user accounts and listings that violate SFSU Tutors' terms of service.

3. Data Definition

Term Description

Term		Description
Unverified User	Guest	Browse the website
		Search tutoring services
		View tutoring services
Verified User	Student	Have all rights of unverified users
		Create, login and logout account
		Book tutoring services on the website
		Review tutor
	Tutor	Have all rights of unverified users
		Create, login and logout account
		Upload and delete tutoring services
		Set/Reset a price for services
	Administrator	Have all rights of unverified users
		Login and logout account
		Manage all accounts
		Manage all tutoring services
Tutoring Services		Information about a particular tutor includes: ● Service title. ● Service id number ● Tutor's id number ● Description. ● Price ● Image ● Status

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Search	Our site provides search:
	● By major category
	● By keyword
Filter	Filter provides better control to achieve more effective and efficient searches. Our site provides filter:
	● By major
	● By class code
Registration Information	Includes:
	● First name
	● Last name
	● Password
	● SFSU email address
	● SFSU ID number
Booking Information	Information about a particular order includes:
	● Booking number
	● Student id number
	● Tutor's id number
	● Booking Date
	● Detail
	● Price
	● Status

Users Permission

	Guest	Student	Tutor	Admin
Browse website	+	+	+	+
Search tutoring services	+	+	+	+
View tutoring services	+	+	+	+
View user's profile	+	+	+	+
Reset their own password		+	+	+
Edit their own profile page		+	+	+
Order tutoring services		+		
Cancel booking		+	+	
Rate Tutor		+		
View order history		+		
Add services			+	
Edit services			+	
Delete services			+	+

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Set/reset price			+	
Delete user account				+

'+': Permission approved.

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4. List of Functional Requirements

Guests

Priority 1:

· Guests shall be able to browse the website.

· Guests shall be able to search for tutors and tutoring services.

· Guests shall be able to filter tutors (by price/class).

Verified Students

 Priority1:

· Verified Students shall have same functionalities as guests.

· Verified Students shall be able to have their own account profiles.

· Verified Students shall be able to post their own request for tutoring services .

· Verified Students shall be able to remove their requests from their own profiles.

Priority 2:

· Verified Students shall be able to set/reset price from their own profiles.

· Verified Students shall be able to sign up for tutoring from the website.

· Verified Students shall be able to review the tutor.

Verified Tutors

priority1:

· Verified Tutors shall have same functionalities as guests.

· Verified Tutors shall be able to have their own account profiles.

· Verified Tutors shall be able to set their own tutoring services (price and class).

priority 2:

· Verified Tutors shall be able to remove tutoring services from their own profiles.

· Verified Tutors shall be able to set/reset price of their services from their own profiles.

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Administrators

· Administrators shall have same functionalities as guests.

· Administrators shall be able to have their own account profiles.

· Administrators shall be able to delete accounts and site content.

5. List of Non-Functional Requirements

1. Application shall be developed using class provided LAMP stack

2. Application shall be developed using pre-approved set of SW development and collaborative tools provided by the instructor.

3. Application shall be hosted and deployed on Bluehost.com shared hosting services.

4. Application shall be optimized for standard desktop/laptop and mobile browsers, and shall render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome and IE. It shall degrade nicely for different sized windows using class approved programming technology and frameworks.

5. Data shall be stored in the database on phpmyadmin.net in the team's account.

6. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.

7. The language used shall be English.

8. Application shall be very easy to use and intuitive. No prior training shall be required to use the website.

9. Google analytics shall be added for major site functions.

10. Messaging between users shall be done only by approved methods to avoid issues of security with e-mail services.

11. Site security: basic best practices to be applied.

12. Modern SE processes and practices must be used as specified, including collaborative and continuous SW development, using the tools approved by the instructor.

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6. UI Mockups and Storyboard

Home:

Our homepage shall be The user's gateway to all of the features provided by our website, where every

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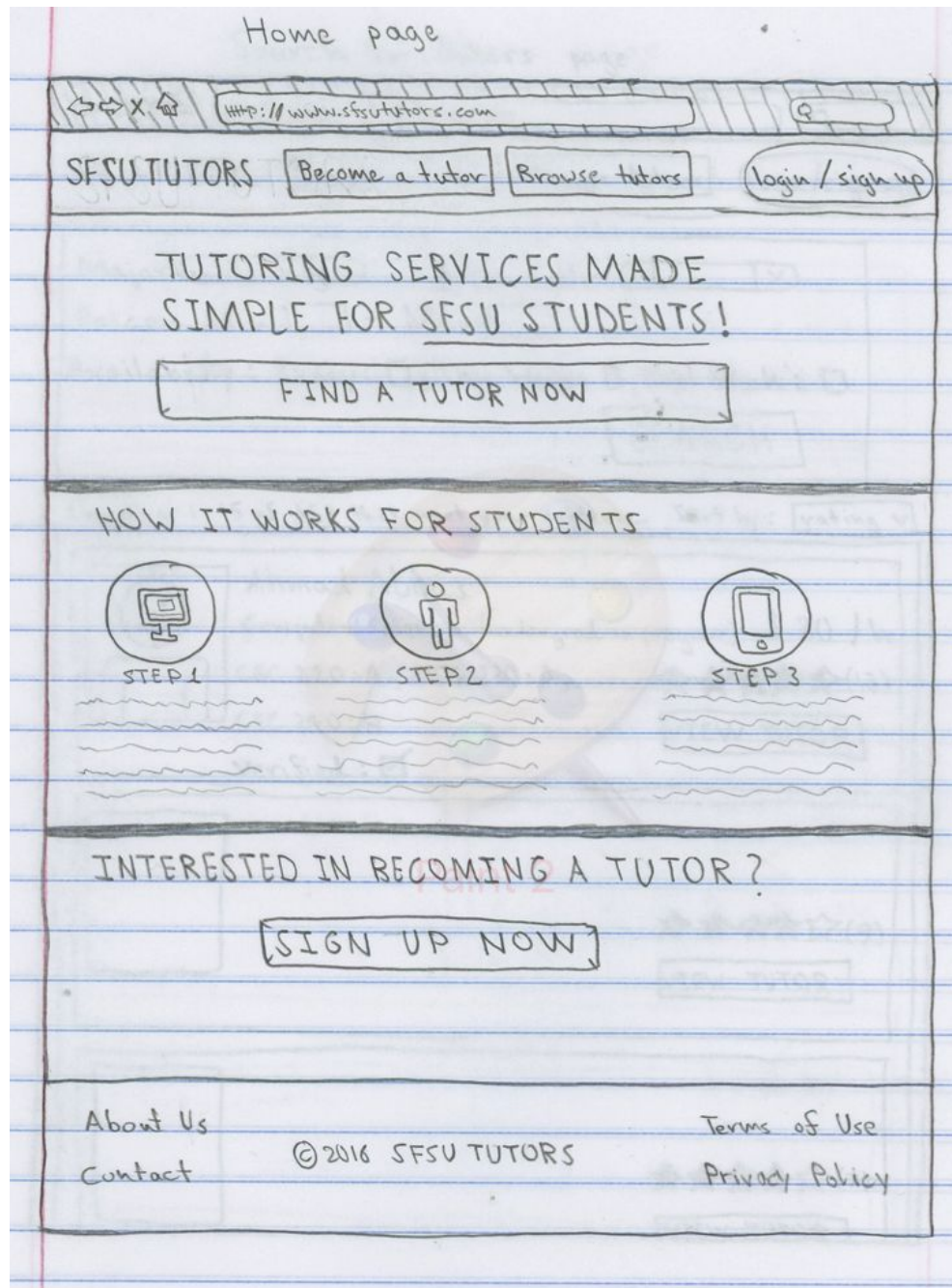
Search:

In our website Search made easy so users can easily find what they need , users can search by the price they can afford ,the subject they need help with , and even for the tutors with the highest rankings.

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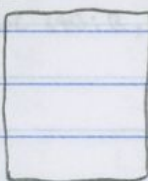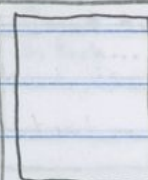
Tutor Selection:

Once users are on this page they can be more specific with their requirements

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Message Tutor:

Registered Students will be able to communicate with their potential tutors directly to share any concerns or to ask any questions

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Book Tutor:

The process of hiring tutors is simple and efficient

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Student Registration:

Students can become members of our service in a matter of 2 minutes or less, signing up process made simple, easy and quick

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Tutor Registration:

Tutors will be required to upload their own transcripts to verify their eligibility before they are allowed to start offering their tutoring services on our site

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Login:

All users(students/tutors) shall be able to log in to their accounts easily with their valid sfsu email address

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7. High Level Architecture, Database Organization

The following list below describes our main software components, products, APIs, tools and systems we will be using to create our final project:

LAMP stack

· **Linux**

Our application will use Linux platform, and it will be hosted using Bluehost.com shared hosting services.

· **Apache**

Our application will be served through the Apache HTTP web server, which is the world's most used web server software. This will allow users to access our application using the web.

· **MySQL**

The database will be managed using MySQL to store information such as users, invoices, items for sale and tutors. The database will be useful to store and retrieve meaningful data using SQL statements.

· **PHP**

The use of PHP scripting language will allow us a create a dynamic website and it will nicely work with MySQL and Apache server. These technologies are free to license.

Frameworks and APIs

· **MINI**

MINI is an extremely simple and easy to understand skeleton PHP application, reduced to the max. It simplifies the MVC pattern needed for the web app.

· **Bootstrap**

Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing responsive web apps. Using this framework will allow us to use templates, themes, and other components.

· **jQuery**

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A cross-platform JavaScript library designed to simplify the client-side scripting of HTML. It uses its own API and provides wrappers to existing functions. This allow us to write less and cleaner JavaScript code.

· **Google Analytics API**
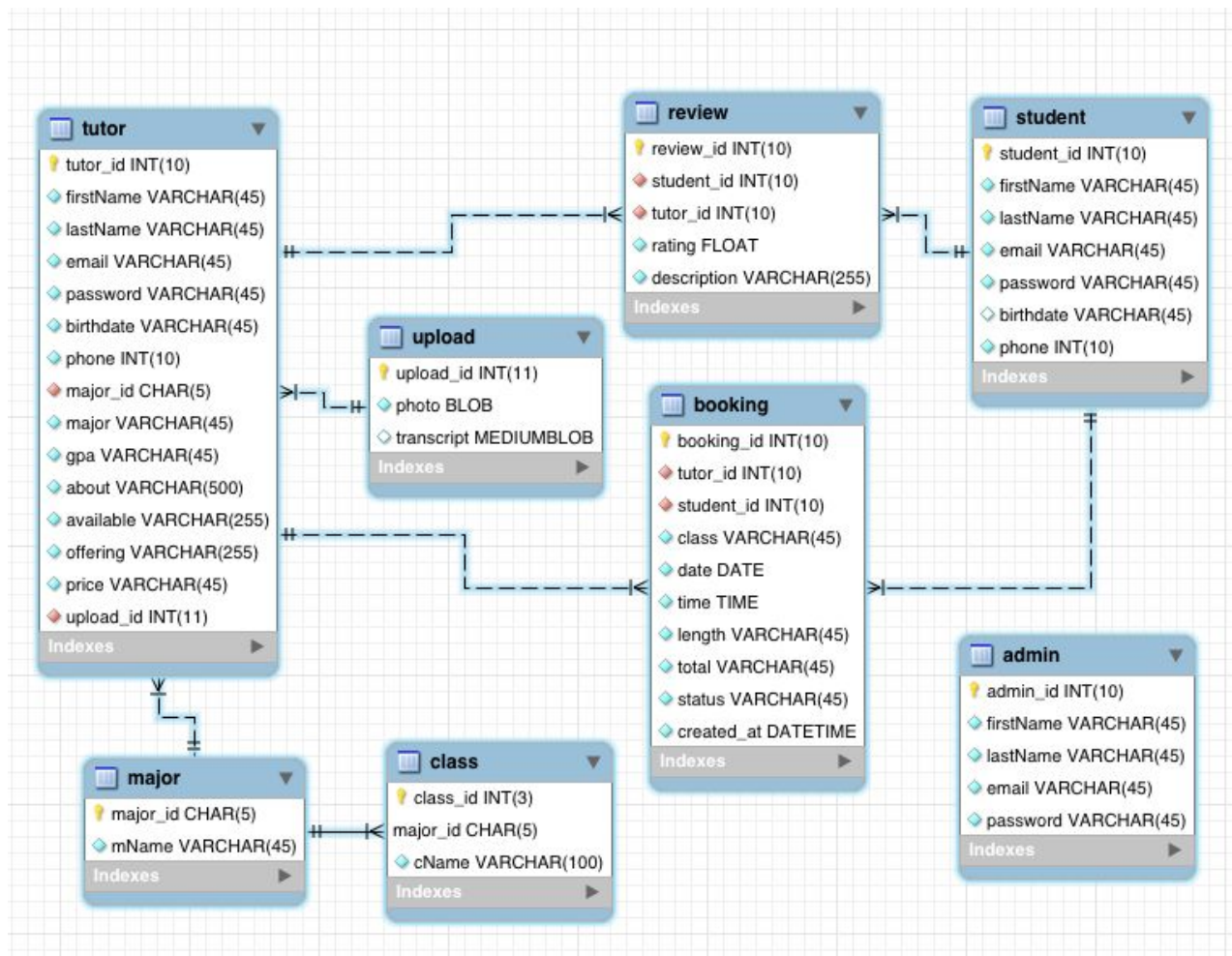Use to collect, configure, and report on user-interactions with the online content.
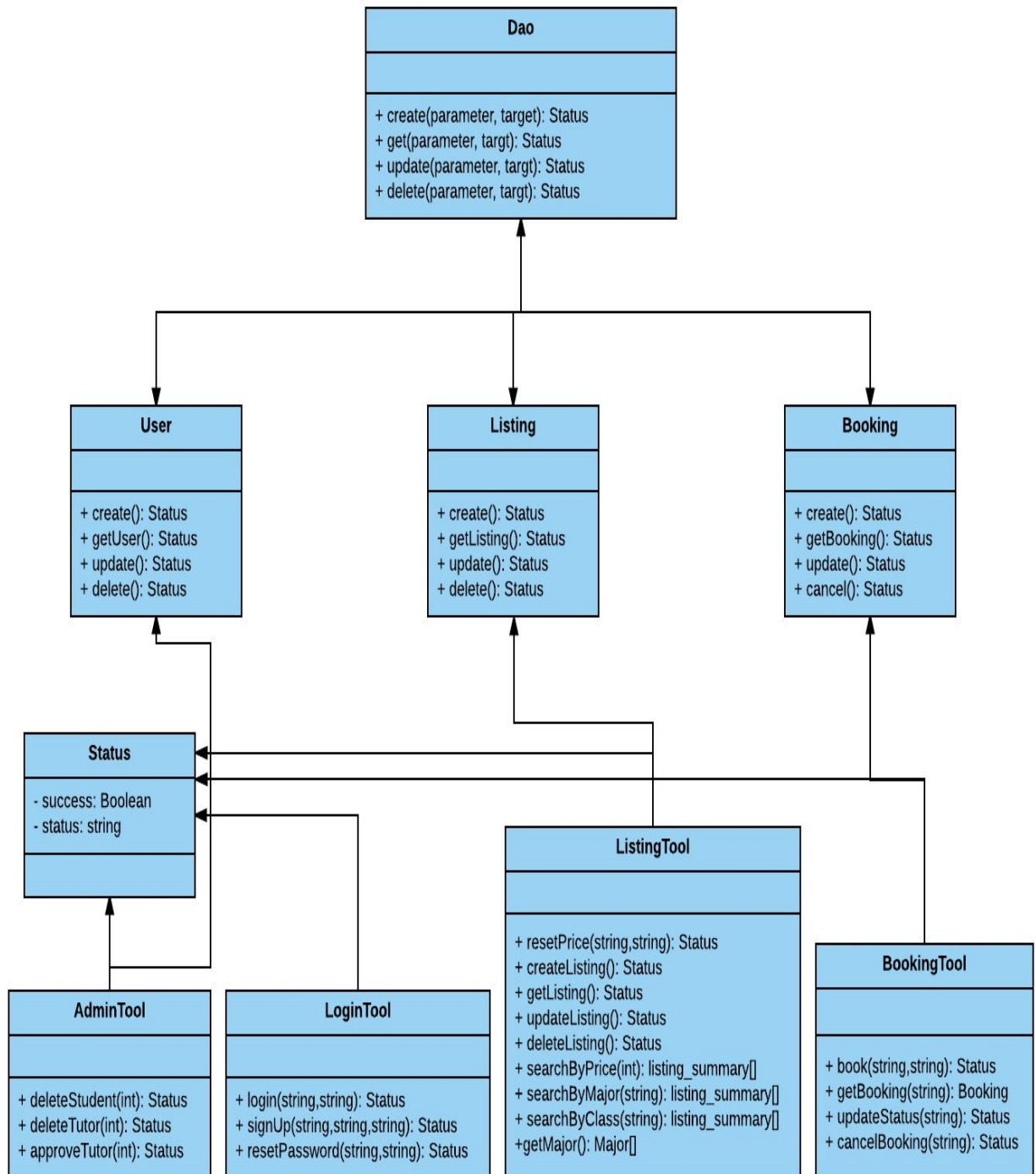
· **Supported Browsers**
Our application will be optimized to run in a standard desktop/laptop and mobile browsers and it will support the latest two versions of the following browsers:
1. Chrome
2. Safari
3. Firefox
4. IE

Database Organization

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8. High Level UML Diagram

Dao

+ create(parameter, target): Status
+ get(parameter, targt): Status
+ update(parameter, targt): Status
+ delete(parameter, targt): Status

User

+ create(): Status
+ getUser(): Status
+ update(): Status
+ delete(): Status

Listing

+ create(): Status
+ getListing(): Status
+ update(): Status
+ delete(): Status

Booking

+ create(): Status
+ getBooking(): Status
+ update(): Status
+ cancel(): Status

Status

- success: Boolean
- status: string

ListingTool

+ resetPrice(string,string): Status
+ createListing(): Status
+ getListing(): Status
+ updateListing(): Status
+ deleteListing(): Status
+ searchByPrice(int): listing_summary[]
+ searchByMajor(string): listing_summary[]
+ searchByClass(string): listing_summary[]
+getMajor(): Major[]

BookingTool

+ book(string,string): Status
+ getBooking(string): Booking
+ updateStatus(string): Status
+ cancelBooking(string): Status

AdminTool

+ deleteStudent(int): Status
+ deleteTutor(int): Status
+ approveTutor(int): Status

LoginTool

+ login(string,string): Status
+ signUp(string,string,string): Status
+ resetPassword(string,string): Status

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9. Key Risks

Technical Risks
- There are risks with the use of virtual personal server and the security risks the come with it.
- Resolution: start getting familiar with VPS servers and their security limits.

Teamwork Risks
- Tasks may be not completed in a timely manner.
- Resolution: We have set up a task sheet to keep track of what both of us are doing and to make sure that we're on track and not doing unnecessary tasks.

Legal/content Risk
- There may be risks of unauthorized usage of content/SW.
- Resolution: We will be reading the terms of service carefully as we use them.

10. Team Organization

Name	**Role**
Abdullah Arikat	Front End
Khalid Alrashed	Back End

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